

IN THE CLAIMS

What is claimed is:

1. (Currently Amended) A computer system having a plurality of processors within a cell, the cell comprising:
 - a processor type register,
 - at least one primary processor;
 - a management subprocessor,
 - an EEPROM, and
 - mapping hardware coupling the plurality of processors to the EEPROM;
 - wherein at system boot the management subprocessor reads the processor type register to determine an appropriate boot image of a plurality of boot images recorded within the EEPROM, and configures the mapping hardware to map the appropriate boot image into boot address space of the at least one primary processors of the cell.
2. (Currently Amended) A method of providing firmware to a first processor of a cell of a cellular computer system comprising the steps:
 - reading information from a processor type register into a management subprocessor;
 - determining a processor instruction set architecture from the information read from the processor type register;
 - selecting a compatible boot image from a plurality of boot images, the plurality of boot images contained within an EEPROM of the cell, where each boot image has associated boot-image information, the step of selecting a compatible boot image performed by the management subprocessor; and
 - configuring mapping hardware to map the compatible boot image of the EEPROM into boot address space of the first processor.
3. (Previously Presented) The method of claim 2 wherein the step of selecting a compatible boot image is performed by a management subprocessor of the cell.

4. (Original) The method of claim 2 wherein the boot-image information comprises version information, and where the step of selecting a compatible boot image selects a most recent version unless a version flag is set.

5. (Original) The method of claim 2 wherein the boot-image information comprises version information, and where the step of selecting a compatible boot image selects a most recent version unless a condition exists selected from the group consisting of a version flag being set and the most recent version determined invalid.

6-9. (Cancelled)

10. (Previously Presented) The method of claim 2 wherein the boot images include boot images for more than one family of processor instruction set architectures.

11. (Previously Presented) The method of claim 2 wherein the computer system is a heterogeneous cellular computer system.

12. (Previously Presented) The method of claim 11 wherein the computer system further comprises a second cell comprises at least a second processor, wherein the first and the second processor are of different instruction set architectures, and further comprising:

selecting a second compatible boot image, the second compatible boot image different from the compatible boot image; and
configuring a second mapping hardware to map the second compatible boot image into memory space of the second processor.

13. (Currently Amended) A method of updating firmware on a computer system, the computer system comprising:

at least one processor, and

at least one management processor coupled to a processor type register;

the method comprising:

determining a discardable boot image, selected from the group consisting of a boot image incompatible with the processor and a least-recent boot image compatible with the processor;

erasing the discardable boot image from an EEPROM of the computer system; and
writing a new boot image to the EEPROM;
wherein the processor is a processor on a cell of a heterogeneous cellular computer system, the cell comprises the processor coupled through mapping hardware to the EEPROM, and wherein a recent boot image compatible with the processor is retained in the EEPROM when the discardable boot image is erased from the EEPROM; and
wherein the management processor reads the processor type register at system powerup to determine an appropriate boot image for the processor and the management processor configures the mapping hardware to present said appropriate boot image to the processor.

14. (New) A method of providing firmware to a first processor of a cell of a cellular computer system comprising the steps:
reading information from a processor type register into a management subprocessor;
determining a processor instruction set architecture from the information read from the processor type register;
selecting a compatible boot image from a plurality of boot images, the plurality of boot images contained within an EEPROM of the cell, where each boot image has associated boot-image information, the step of selecting a compatible boot image being performed by the management subprocessor; and
configuring mapping hardware to map the compatible boot image of the EEPROM into boot address space of the first processor;
wherein the boot images include boot images for more than one family of processor instruction set architectures.